

REMARKS/ARGUMENTS

Claims 24, 26, 28-29, 32-33, 36, and 57-58 remain in this application. Claims 1-23, 25, 27, 30-31, 34-35, 37-56 and 59 have been withdrawn. Claims 24, 26, and 57 have been amended. Claim 33 has been cancelled.

I. Species Election

For the species election for the iodonium salt, Applicant intends to elect 4-(1-methylethyl)phenyl 4-methylphenyliodonium tetrakis(pentafluorophenyl) borate. Further, Applicant submits that the elected species is covered by claims 24, 26, 28-32, 34-36, 57 and 58. Accordingly, Applicant requests that claims 30-31 and 34-35, which were withdrawn by the Examiner, be reinstated. These claims are not drawn to a non-elected species and therefore should not be withdrawn. Claims 30 and 31 are both directed to the elected species of cationically polymerizable resin, namely, an epoxy resin. Also, claims 34 and 35 are both directed to the elected species of visible light sensitizer, namely, a ketone. An alpha-diketone, as claimed in 34, and camphorquinone, as claimed in claim 35, are both ketones.

II. Objection to the Specification

Applicant submits that proper antecedent basis is provided in the specification for all the iodonium salts claimed in claim 32. The claimed iodonium salt, 4-(1-methylethyl)phenyl 4-methylphenyliodonium tetrakis(pentafluorophenyl) borate, is disclosed in the specification at paragraph 11 (page 4, lines 3-4) and at paragraph 42 (page 15, lines 27-28). Accordingly, Applicant requests that the objection to the specification be withdrawn.

III. §§ 102 and 103 Rejections

Applicant submits that claims 24, 26, 28-32, 34-36, and 57-58 are not anticipated or made obvious by U.S. Patent No. 4,560,709 to Berner et al. (Berner). Further, Applicant submits that these claims are not anticipated or made obvious by U.S. Patent No. 4,394,403 to Smith (Smith).

Referring initially to independent claims 24, 26, and 57, Berner does not disclose or suggest Applicant's claimed ternary photoinitiator system. More specifically, Berner does not disclose or suggest a photoinitiator system that includes a visible light sensitizer that is a ketone selected from the group consisting of alpha-diketones, xanthene dyes, fluorone dyes, fluorescein dyes, and combinations thereof, as claimed by Applicant in claims 24, 26, and 57. This is an important difference between Applicant's invention and what is disclosed by Berner.

The ketones claimed by Applicant in claims 24, 26, and 57 all are able to absorb visible light. Thus, they aid in the cationic curing of a resin when using visible light. In contrast, the ketones disclosed by Berner are alpha-alkoxy, alpha-hydroxy, alpha-siloxy, or alpha-alkyl aromatic ketones, which are not visible light absorbing ketones. By including a visible light absorbing ketone as a visible light sensitizer and an alkoxy substituted anthracene as an electron donor in its ternary photoinitiator system, Applicant is able to provide a photoinitiator system that provides improved cationic curing under visible light conditions. Further, Applicant provides a versatile system that can quickly cure both thick and thin films. See paragraph 14 (page 4, lines 25-31) of the specification.

The ketones disclosed by Berner as co-catalysts traditionally are used as free radical curing catalysts, such as for polymerizing acrylates under UV light. They are UV light

absorbing materials and do not provide the visible light curing benefits that are provided by the components of Applicant's claimed composition.

Still further, Smith does not disclose or suggest Applicant's ternary photoinitiator system. In fact, the initiator system disclosed by Smith includes only two components, an iodonium salt and a sensitizer, which may be an aminoketone or an alkoxy substituted anthracene. The alkoxy substituted anthracene in Smith's formulation is functioning as a visible light sensitizer. Smith does not disclose or suggest using an aminoketone in combination with an alkoxy substituted anthracene. See Col. 9, Examples 17-23 of Smith, which shows an epoxy material combined with a two component initiator system, namely an iodonium salt and a sensitizer. Still further, Smith does not disclose or suggest the particular ketones claimed by Applicant for use as visible light sensitizers, namely, alpha-diketones, xanthene dyes, fluorone dyes, fluorescein dyes, and combinations thereof, which are claimed by Applicant in claims 24, 26, and 57.

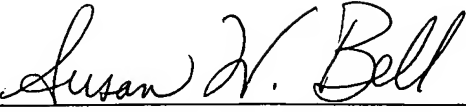
For the foregoing reasons, independent claims 24, 26, and 57 are not anticipated or made obvious by Berner or Smith. Claims 28-32, 34-36, and 58 depend from these claims and are not anticipated or made obvious by Berner or Smith for the same reasons claims 24, 26, and 57 are not anticipated or made obvious. Accordingly, a *prima facie* case of obviousness for rejecting claims 24, 26, 28-32, 34-36, and 58 has not been established.

IV. Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that the claims are in condition for allowance and eventual issuance. Such action is respectfully requested. Should the Examiner have any further questions or comments which need be addressed in order to obtain allowance, please contact the undersigned attorney at the number listed below.

Acknowledgement of receipt is respectfully requested.

Respectfully submitted,

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